

Product Full Line-up

Full Line-up of Products Turning Center Machining Center Double Column Machining Center Boring Machine

Optimal Technology Easy Operation Package Applications

Global Support Network Overseas Supplies System



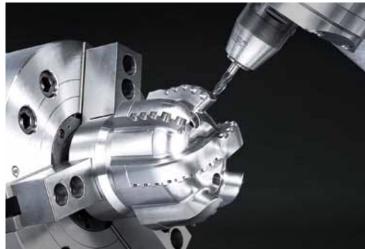
Optimal Solutions for the Future

In an effort to provide solutions that fit each partner's unique needs we constantly innovate our thinking, our processes, and the way we do business.



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 Overseas Supplies System





Product Full Line-up

Full Line-up of Products

Turning Center
Machining Center
Double Column
Machining Center
Boring Machine

Optimal Technology Easy Operation Package Applications

Global Support Network Overseas Supplies System

Continuous Innovation for Advanced Products & Technology

Whatever your needs are, we have the product you need. Our full line of competitive high-value machine tools delivers unmatched performance and precision.

Full Line-up of Products

Horizontal turning centers



Multi-tasking turning centers



Vertical turning centers



Ram type vertical turning centers



Swiss type turning centers



Vertical machining centers





5-axis vertical machining centers



Die & mold vertical machining centers



Horizonatal machining centers



Horizontal boring mills



Double column machining centers



Linear Pallet System



Product Full Line-up

Full Line-up of Products

Tuming Center
Machining Center
Double Column
Machining Center
Boring Machine

Optimal Technology Easy Operation Package Applications

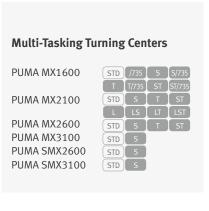
Global Support Network Overseas Supplies System

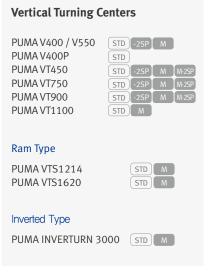
Optimal solutions through advanced technologies

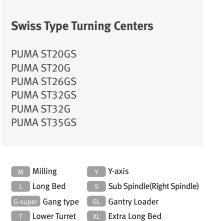
Through open communication with our customers and shareholders, regarding their current and future needs, our company takes pride in offering effective and flexible manufacturing solutions. In doing so, we guarantee to deliver quality products and services as an integral part of our business policy and operational priority. As we pursue autonomous management by respecting individuals' unique abilities and encourage collaboration and teamwork, we advance the development of innovation and value. This is our vision and management philosophy.

Turning Centers









B* Big Bore (only PUMA 800)

2SP Twin Spindle

Big Bore

STD Standard model

A B C Chuck size

Machining Center / DCM / HBM

Vertical Machining Centers

Tapping Center

T 4000 DT 360D



Hight Productivity & Heavy Duty

DNM 400 DNM 500 DNM 650 DNM 750



a II HS

Mynx 5400 STD /50
Mynx 6500 STD /50
Mynx 7500 STD /50
Mynx 9500 STD

Die & Mold

VM 5400 VM 6500 VM 560 VM 750 VM 960 VM 1260 DVM 500 II DVM 650 II NX 4500 II NX 6500 II FM 400 linear

BM 2740 STD M U

Bridge Type Machining Center

Five Face Double Column Machining Centers

DCM 2740F DCM 2750F DCM 2760F DCM 2780F DCM 3250F DCM 3260F DCM 3280F DCM 3780F DCM 37100F

Column Moving & Dual Pallet

VC 430 VC 510

5-axis

DNM 200/5AX DNM 350/5AX VC 630/5AX FM 200/5AX *linear* FM 350/5AX *linear*

Multi Purpose

VCF 850



Horizontal Machining Centers

STD

STD

High Speed

HC 400 II HC 500 II HP 4000 II HP 5100 II NHP 5500 NHP 6300 NHP 8000

Heavy Duty

HM 5000 NHM 5000 NHM 6300 NHM 8000 HM 1000 HM 1250



Horizontal Boring Mills

DBC 110

DBC 130

DBC 250

DBC 250

Double column machining centers

DBD 1270 DBD 1580

Product Full Line-up

Full Line-up of Products Turning Center

Machining Center Double Column Machining Center Boring Machine

Optimal Technology Easy Operation Package Applications

Global Support Network Overseas Supplies System

Turning Center

Compact Turning Center / High Performance Horizontal Turning Center / Next-generation Heavy Duty Turning Center

Lynx 210 / 220 / 300

Lynx series are compact turning center. Designed to produce small parts with unsurpassed accuracy. Value added machining for small parts.



Machine	Chuck (inch)	Max. Tuming Dia. mm (inch)	Max. Turning Length mm (inch)	Spindle Speed (r/min)	Motor** kW (Hp)
Lynx 210A / B	6/8	280 (11.0)	280 / 300 (11.0 / 11.8)	6000 / 5000	15 / 15 / 11 (20.1 / 20.1 / 14.8)
Lynx 220A / LA	6	320 (12.6)	322 / 542 (12.7 / 21.3)	6000	15 / 15 / 11 (20.1 / 20.1 / 14.8)
Lynx 220B / LB	8	320 (12.6)	305 / 525 (12.6 / 20.7)	5000	15 / 15 / 11 (20.1 / 20.1 / 14.8)
Lynx 220C / LC	8	320 (12.6)	305 / 525 (12.6 / 20.7)	4000	15 / 15 / 11 (20.1 / 20.1 / 14.8)
Lynx 220MA / LMA	6	250 (9.8)	290 / 510 (11.4 / 20.1)	6000	15 / 15 / 11 (20.1 / 20.1 / 14.8)
Lynx 220MC / LMC	8	250 (9.8)	290 / 510 (11.4 / 20.1)	4500	15 / 15 / 11 (20.1 / 20.1 / 14.8)
Lynx 220LMSA	6	300 (11.8)	510 (20.1)	6000	15 / 15 / 11 (20.1 / 20.1 / 14.8)
Lynx 220LMSC	8	300 (11.8)	510 (20.1)	4500	15 / 15 / 11 (20.1 / 20.1 / 14.8)
Lynx 220YA / YC	6/8	300 (11.8)	300 (11.8)	6000 / 4500	15 / 15 / 11 (20.1 / 20.1 / 14.8)
Lynx 220LYA / LYC	6/8	300 (11.8)	510 (20.1)	6000 / 4500	15 / 15 / 11 (20.1 / 20.1 / 14.8)
Lynx 220LSYA / LSYC	6/8	300 (11.8)	510 (20.1)	6000 / 4500	15 / 15 / 11 (20.1 / 20.1 / 14.8)
Lynx 220G super*	6	-	322 (12.7)	6000	15 / 15 / 11 (20.1 / 20.1 / 14.8)
Lynx 300	10	450 (17.7)	765 (30.1)	3500	15 / 15 / 11 (20.1 / 20.1 / 14.8)
Lynx 300M	10	370 (14.6)	712 (28.0)	3500	15 / 15 / 11 (20.1 / 20.1 / 14.8)

L: Long bed M: Milling S: Sub spindle *V640i (Fanuc I series) ** S3 25%/15min/Cont.

PUMA 2100 / 2600 / 3100

PUMA 2100 / 2600 / 3100 series have been developed to create full line up of high level 8" to 12" size with model variations from 2 axis to Y axis sub spindle.



Machine	Chuck (inch)	Max. Turning Dia. mm (inch)	Max. Turning Length mm (inch)	Spindle Speed (r/min)	Motor* kW(Hp)
PUMA 2100 / S[L / LS]	8	481 (18.9)	545 [785] (21.4 [30.9])	4500	18.5 / 15 (24.8 / 20.1)
PUMA 2100M / MS[LM / LMS]	8	406 (16.0)	520[760](20.5[29.9])	4500	18.5 / 15 (24.8 / 20.1)
PUMA 2100Y / LY	8	406 (16.0)	520 / 760 (20.5 / 29.9)	4500	18.5 / 15 (24.8 / 20.1)
PUMA 2100SY / LSY	8	406 (16.0)	520 / 760 (20.5 / 29.9)	4500	18.5 / 15 (24.8 / 20.1)
PUMA 2600/500	10	481 (18.9)	550 (21.7)	3500	18.5 / 15 (24.8 / 20.1)
PUMA 2600M/500	10	376 (14.8)	520 (20.5)	3500	18.5 / 15 (24.8 / 20.1)
PUMA 2600 / S[L / LS]	10	481 (18.9)	790 [1310] (31.1 [51.6])	3500	22 / 18.5 (29.5 / 24.8)
PUMA 2600M / MS [LM / LMS]	10	376 (14.8)	760 [1280] (29.9 [50.4])	3500	22 / 18.5 (29.5 / 24.8)
PUMA 2600B [LB]	12	481 (18.9)	755 [1275] (29.7 [50.2])	2800	22 / 18.5 (29.5 / 24.8)
PUMA 2600MB [LMB]	12	376 (14.8)	725 [1245] (28.5 [49.0])	2800	22 / 18.5 (29.5 / 24.8)
PUMA 2600SB [MSB]	12	481 [376] (18.9 [14.8])	755[725](29.7[28.5])	2800	22 / 18.5 (29.5 / 24.8)
PUMA 2600Y /LY [LYB]	10[12]	376 (14.8)	760 /1280 [1245] (29.9 / 50.4 [49.0])	3500 [2800]	22 / 18.5 (29.5 / 24.8)
PUMA 2600SY / LSY	10	376 (14.8)	760 /1280 (29.9 / 50.4)	3500	22 / 18.5 (29.5 / 24.8)
PUMA 2600YB / SYB	12	376 (14.8)	725 (28.5)	2800	22 / 18.5 (29.5 / 24.8)
PUMA 3100	12	525 (20.7)	790 (31.1)	2800	22 / 18.5 (29.5 / 24.8)
PUMA 3100L/XL/UL	12	525 (20.7)	1310 / 2150 / 3150 (51.6 / 84.7 / 124.0)	2800	22 / 18.5 (29.5 / 24.8)
PUMA 3100M / LM / XLM / ULM	12	420 (16.5)	765 / 1285 / 2125 / 3125 (30.1 / 50.6 / 83.7 / 123.0)	2800	22 / 18.5 (29.5 / 24.8)
PUMA 3100Y/ LY / XLY / ULY	12	420 (16.5)	765 / 1285 / 2125 / 3125 (30.1 / 50.6 / 83.7 / 123.0)	2800	22 / 18.5 (29.5 / 24.8)
		1.10	ng hed XI · Xtra long	hed II	II · I Iltra long hed

 $\label{eq:L:Long} L: Long \ bed \ XL: Xtra \ long \ bed \ UL: Ultra \ long \ bed \\ M: Milling \ S: Sub \ spindle \ Y: Y-axis \ milling \ *30min/Cont.$

PUMA GT2100 / 2600 / 3100

PUMA GT2100 / 2600 is a Global Standard Turning Center created with DOOSAN's vast experience and technical prowess to become

the World's leading turning center on the market.



Machine	Chuck (inch)	Max. Turning Dia. mm (inch)	Max. Tuming Length mm (inch)	Spindle Speed (r/min)	Motor* kW (Hp)
PUMA GT2100/300	8	390 (15.4)	312 (12.3)	4500	18.5 / 15 (24.8 / 20.1)
PUMA GT2100M/300	8	300 (11.8)	263 (10.4)	4500	18.5 / 15 (24.8 / 20.1)
PUMA GT2100	8	390 (15.4)	562 (22.1)	4500	18.5 / 15 (24.8 / 20.1)
PUMA GT2100M	8	300 (11.8)	513 (20.2)	4500	18.5 / 15 (24.8 / 20.1)
PUMA GT2100B / MB	10	390 / 300 (15.4 / 11.8)	550 / 501 (21.7 / 19.7)	3500	18.5 / 15 (24.8 / 20.1)
PUMA GT2600 / L	10	460 (18.1)	658 / 1078 (25.9 / 42.4)	3500	22 / 18.5** (29.5 / 24.8)
PUMA GT2600M / LM	10	410 (16.1)	610 / 1030 (24 / 40.6)	3500	22 / 18.5** (29.5 / 24.8)
PUMA GT3100 / L	12	481 (18.9)	755 / 1275 (29.7 / 50.2)	2800	35 / 26 / 22*** (47.0 / 34.9 / 29.5)
PUMA GT3100M / LM	12	376 (14.8)	725 / 1245 (28.5 / 49.0)	2800	Low winding: 22 / 13 (29.5 / 17.4) High winding: 22 / 18.5** (29.5 / 24.8)

^{* 15}min/Cont ** 30min/Cont. *** S3 25%/30min/Cont.

PUMA 4100

Powerful, Heavy Duty Turning Center



Machine	Chuck (inch)	Max. Tuming Dia. mm (inch)	Max. Turning Length mm (inch)	Spindle Speed (r/min)	Motor* kW (Hp)
PUMA 4100A / LA	12	550 (21.7)	1079 / 2129 (42.5 / 83.8)	3000	35 / 26 / 22 (47.0 / 34.9 / 29.5)
PUMA 4100B / LB	15	550 (21.7)	1043 / 2093 (41.1 / 82.4)	2000	35 / 26 / 22 (47.0 / 34.9 / 29.5)
PUMA 4100C / LC	21	550 (21.7)	1024 / 2074(40.31 / 81.7)	1500	35 / 26 / 22 (47.0 / 34.9 / 29.5)
PUMA 4100MA / LMA	12	560 (22.0)	1014 / 2064 (39.9 / 81.3)	3000	30 / 22** (40.3 / 29.5)
PUMA 4100MB / LMB	15	560 (22.0)	978 / 2028 (38.5 / 79.8)	2000	30 / 22** (40.3 / 29.5)
PUMA 4100MC / LMC	21	560 (22.0)	959 / 2009 (37.8 / 79.1)	1500	37 / 30** (49.7 / 40.3)

L:Long bed M:Milling *S3 25%/15min/Cont. **30min/Cont.

PUMA 5100

Powerful Turning Center with Y Axis Added



Machine	Chuck (inch)	Max. Turning Dia. mm (inch)	Max. Turning Length mm (inch)	Spindle Speed (r/min)	Motor* kW (Hp)
PUMA 5100A / LA	15	650 (25.6)	992 / 2042 (39.1 / 80.4)	2000	37 / 30 (49.7 / 40.3)
PUMA 5100B / LB	21	650 (25.6)	992 / 2042 (39.1 / 80.4)	1500	45 / 37 (60.4 / 49.7)
PUMA 5100C / LC	-	650 (25.6)	992 / 2042 (39.1 / 80.4)	1000	45 / 37 (60.4 / 49.7)
PUMA 5100MA / LMA	15	650 (25.6)	951 / 2001 (37.4 / 78.8)	2000	37 / 30 (49.7 /40.3)
PUMA 5100MB / LMB	21	650 (25.6)	951 / 2001 (37.4 / 78.8)	1500	45 / 37 (60.4 /49.7)
PUMA 5100LYA	15	550 (21.7)	2050 (80.7)	2000	37 / 30 (49.7 /40.3)
PUMA 5100LYB	21	550 (21.7)	2020 (79.5)	1500	45 / 37 (60.4 /49.7)
PUMA 5100LYC	-	550 (21.7)	2020 (79.5)	1000	45 / 37 (60.4 / 49.7)

 $L: Long \ bed \ M: Milling \ Y: Y \ axis \ Milling \ * 30min/Cont.$

PUMA 400XL

High performance turning center, Strength on heavy duty cutting originated by rigid structure and powerful spindle & servo drive. Exceptionally PUMA 400XLM provides longer shaft & milling work.



Machine	Chuck (inch)	Max. Tuming Dia. mm (inch)	Max. Tuming Length mm (inch)	Spindle Speed (r/min)	Motor* kW(Hp)
PUMA 400XLA / XLMA	12	550 / 560 (21.7 / 22.0)	3150 (124.0)	3000	22 / 18.5 (29.5 / 24.8) / 30 / 22 (40.3 / 29.5)
PUMA 400XLB / XLMB	15	550 / 560 (21.7 / 22.0)	3114 (122.6)	2000	26 / 22 (34.9 / 29.5) / 30 / 22 (40.3 / 29.5)
PUMA 400XLC / XLMC	21	550 / 560 (21.7 / 22.0)	3095 (121.9)	1500	37 / 30 (49.7 / 40.3)

L:Long bed XL:Xtra long bed M:Milling *30min/Cont.

Product Full Line-up

Full Line-up of Products Turning Center

Machining Center
Double Column
Machining Center
Boring Machine

Optimal Technology Easy Operation Package Applications

Global Support Network Overseas Supplies System

Turning Center

Next-generation Heavy Duty Turning Center/ Large Sized Horizontal Turning Center / Multi-Axis Turning Center / Aluminum Wheel Turn & Wheel Mill / Twin-spindle Turning Center / Gantry Loaders

PUMA 480XL

PUMA 480 series mainly focus its capacity on heavy duty cutting, wide range of cutting coverage along with rapid positioning and fast bi-directional turret-indexing.



Machine	Chuck (inch)	Max. Tuming Dia. mm (inch)	Max. Turning Length mm (inch)	Spindle Speed (r/min)	Motor* kW(Hp)		
PUMA 480XL / XLM	21	650 (25.6)	3065 (120.7)	1500	45 / 37 (60.4 / 49.7)		
PUMA 480XLD	-	650 (25.6)	3065 (120.7)	1000	45 / 37 (60.4 / 49.7)		
I Long hed XI - Xtra long hed M - Milling D - Big hore * 30min/Con							

PUMA 600 / 700 / 800

The largest turning center in their class featuring heavy and interrupted cutting, holding long term accuracy,

and maintaining superior finishes.



Machine	Chuck mm (inch)	Max. TurningDia. mm (inch)	Max. Turning Length mm (inch)	Spindle Speed (r/min)	Motor* kW (Hp)
PUMA 600 / M	18	900 (35.4)	1600 (63.0)	1800	45 / 37 (60.4 / 49.7)
PUMA 600L / LM	18	900 (35.4)	3200 (126.0)	1800	45 / 37 (60.4 / 49.7)
PUMA 700 / M	24	900 (35.4)	1600 (63.0)	1500	45 / 37 (60.4 / 49.7)
PUMA 700L / LM	24	900 (35.4)	3200 (126.0)	1500	45 / 37 (60.4 / 49.7)
PUMA 800 / M	32	900 (35.4)	1600 (63.0)	750	45 / 37 (60.4 / 49.7)
PUMA 800B / LB	-	900 (35.4)	1600 (63.0) / 3200 (126.0)	500	45 / 37** (60.4 / 49.7)
PUMA 800L / LM	32	900 (35.4)	3200 (126.0)	750	45 / 37 (60.4 / 49.7)
PUMA 600XL / XLM	18	900 (35.4)	5050 (198.8)	1800	45 / 37 (60.4 / 49.7)
PUMA 600LY / XLY	18	750 (29.5)	3250 / 5050 (128.0 / 198.8)	1800	45 / 37 (60.4 / 49.7)
PUMA 700XL / XLM	24	900 (35.4)	5050 (198.8)	1500	45 / 37 (60.4 / 49.7)
PUMA 700LY / XLY	24	750 (29.5)	3250 / 5050 (128.0 / 198.8)	1500	45 / 37 (60.4 / 49.7)
PUMA 800XL / XLM	32	900 (35.4)	5050 (198.8)	750	45 / 37 (60.4 / 49.7)
PUMA 800LY / XLY	32	750 (29.5)	3250 / 5050 (128,0 / 198,8)	750	45 / 37 (60.4 / 49.7)

L: Long bed XL: Xtra long bed M: Milling Y: Y-axis milling * 30min/Cont. **Big bore

PUMATT1500 / 1800 / 2000 / 2500, PUMATL2000 / 2500

Simultaneous machining on two faces with twin spindles and turrets. Virtual realization of Y-axis function will bring you double productivity.



Machine	Chuck mm (inch)	Max. Turning Dia. mm (inch)	Max. Turning Length mm (inch)	Spindle Speed (r/min)	Motor* kW(Hp)
PUMATT1500S / MS	6	230 (9.1)	120 (4.7)	6000	Left: 15 / 11 (20.1 / 14.8) Right: 15 / 11 (20.1 / 14.8)
PUMATT1500SY	6	230 (9.1)	120 (4.7)	6000	Left: 15 / 11 (20.1 / 14.8) Right: 15 / 11 (20.1 / 14.8)
PUMATT1800S / MS	8	230 (9.1)	230 (9.1)	5000	Left: 22 / 15 (29.5 / 20.1) Right: 22 / 15 (29.5 / 20.1)
PUMATT1800SY	8	230 (9.1)	230 (9.1)	5000	Left: 22 / 15 (29.5 / 20.1) Right: 22 / 15 (29.5 / 20.1)
PUMATT2000S / MS	8	U:390/L:300 (15.4/11.8)	350 (13.8)	5000	Left: 22/18.5/15** (29.5/24.8/20.1) Right: 22/18.5/15** (29.5/24.8/20.1)
PUMATT2000SY	8	U:390/L:300 (15.4/11.8)	350 (13.8)	5000	Left: 22/18.5/15** (29.5/24.8/20.1) Right: 22/18.5/15** (29.5/24.8/20.1)
PUMATT2500S / MS	10	U:390/L:300 (15.4/11.8)	350 (13.8)	3500	Left: 26 / 22 (34.9 / 29.5) Right: 26 / 22 (34.9 / 29.5)
PUMATT2500SY	10	U:390/L:300 (15.4/11.8)	350 (13.8)	3500	Left: 26 / 22 (34.9 / 29.5) Right: 26 / 22 (34.9 / 29.5)
PUMATL2000 / L	8	U:370/L:240 (14.6/9.4)	600 (23.6)	5000	22 / 18.5 / 15** (29.5 / 24.8 / 20.1)
PUMATL2000M / LM	8	U:350/L:240 (13.8/9.4)	600 (23.6)	5000	22 / 18.5 / 15** (29.5 / 24.8 / 20.1)
PUMATL2500 / L	10	U:370/L:240 (14.6/9.4)	600 (23.6)	4000	26 / 22 (34.9 / 29.5)
PUMATL2500M / LM	10	U:350/L:240 (13.8/9.4)	600 (23.6)	4000	26 / 22 (34.9 / 29.5)

 $\label{eq:main_section} M: \mbox{Milling } S: \mbox{Sub spinndle } Y: \mbox{Y-axis milling } U: \mbox{on upper turret } L: \mbox{on lower turret} \\ * \mbox{30min/Cont. } ** \mbox{10min/30min/Cont.}$

PUMA AW560 / 660

AW / VAW series are designed for machining aluminum wheels. Automatic machining of aluminun wheels-from raw material supply to finished wheel.



	(inch)	mm (inch)	(r/min)	kW(Hp)
PUMA AW560	20	830 (32.7)	2500	37 / 30 (49.7 / 40.3)
PUMA AW660	24	830 (32.7)	2000	37 / 30 (49.7 / 40.3)
PUMA AW560MF	20	830 (32.7)	2500	30 / 25 (40.3 / 33.6)

* 30min/Cont.

PUMA VAW700 / 800

Vertical Wheel Turn

Machine	Wheel Size (inch)	Swing over bed mm (inch)	Spindle Speed (r/min)	Motor* kW(Hp)
PUMA VAW700 *	26,5	900 (35.4)	2000	55 / 45 (73.8 / 60.4)**
PUMA VAW800 *	28	1140 (44.9)	2000	55 / 45 (73.8 / 60.4)**

*: Without ACC ** S3 40% 30min/Cont.

PUMA HT230T / H250T / H310T / HT230TG / QL200H / QL300H / TW2600 / TW2600-GL

The twin spindle turning center providing affordable solution.



Machine	Chuck (inch)	Max. Turning Dia. mm (inch)	Max. Turning Length mm (inch)	Spindle Speed (r/min)	Motor* kW(Hp)
PUMA HT230T	6	Ø240 (9.4)	160 (6.3)	4500	11 /7.5 (14.8 / 10)
PUMA H250T	8	Ø260 (10.2)	160 (6.3)	4500	11 / 7.5 (14.8 / 10)
PUMA H250TM	8	Ø310 (12.2)	160 (6.3)	4500	11 / 7.5 (14.8 / 10)
PUMA H310T	10	Ø410 (16.1)	230 (9.1)	3500	18.5 / 15 (24.8 / 20.1)
PUMA H310TM	10	Ø410 (16.1)	230 (9.1)	3500	18.5 / 15 (24.8 / 20.1)
PUMATW2600	10 {8, 12}	Ø360 (14.2)	170 (6.7)	3500	18.5 / 15 (24.8 / 20.1)
				M : N	Milling *30min/Cont.

The twin spindle turning center with gantry loader.



Machine	Recom Work Dia. mm (inch)	Recom. Turning Length mm (inch)	Max. Work Weight kg (lb)	Std. Loading Time (s)	Jaw Stroke mm (inch)
PUMA HT230TG	Ø140 (5.5)	100 (3.9)	3 (6.6)	7	Ø16(0.6)
PUMA QL200H / HM	Ø160 (6.3)	100 (3.9)	5 (11.0)	10	Ø20(0.8)
PUMA QL300H / HM	Ø250 (9.8)	85 (3.3)	8 (17.6)	13	Ø20 (0.8)
PUMATW2600-GL	Ø200 (7.9)	120 (4.7)	6 (13.2)	7.9	Ø20 (0.8)
					{} · Ontion

{}:Option

Product Full Line-up

Full Line-up of Products Turning Center

Machining Center Double Column Machining Center Boring Machine

Optimal Technology Easy Operation Package Applications

Global Support Network Overseas Supplies System

Turning Center

Multi-Tasking Turning Center / Vertical Turning Center / Super-sized Vertical Turning Center / Swiss Type Turning Center

PUMA MX1600 / 2100 / 2600 / 3100 PUMA SMX2600 / 3100

The integration of machining center and turning center gives you unmatched flexibility in wide variety of part configurations. From simple turning and milling, to complex multi-axis simultaneous machining, all operations can be completed in one machine.



Machine	Chuck (inch)	Max. Turning Dia. mm (inch)	Max. Turning Length mm (inch)	Spindle Speed Main / Milling (r/min)	Motor Main / Sub / Milling kW (Hp)
PUMA MX1600	6	330 (13.0)	900 (35.4)	600 / 12000	15(20.1)/-/9(12.1)
PUMA MX1600/735	6	330 (13.0)	700 (27.6)	600 / 12000	15(20.1)/-/9(12.1)
PUMA MX1600S	6	330 (13.0)	900 (35.4)	600 / 12000	15(20.1)/15(20.1)/9(12.1)
PUMA MX1600S/735	6	330 (13.0)	700 (27.6)	600 / 12000	15(20.1)/15(20.1)/9(12.1)
PUMA MX1600T	6	330 (13.0)	900 (35.4)	600 / 12000	15(20.1)/-/9(12.1)
PUMA MX1600T/735	6	330 (13.0)	700 (27.6)	600 / 12000	15(20.1)/-/9(12.1)
PUMA MX1600ST	6	330 (13.0)	900 (35.4)	600 / 12000	15(20.1)/15(20.1)/9(12.1)
PUMA MX1600ST/735	6	330 (13.0)	700 (27.6)	6000 / 12000	15(20.1)/15(20.1)/9(12.1)
PUMA MX2100 / L	8	540 (21.3)	1020 (40.2)	5000 / 12000	22(29.5)/-/18.5(24.8)
PUMA MX2100S/LS	8	540 (21.3)	1020 / 1520 (40.2 / 59.8)	5000 / 12000	22(29.5)/22(29.5)/18.5(24.8)
PUMA MX2100T / LT	8	540 (21.3)	1020 / 1520 (40.2 / 59.8)	5000 / 12000	22(29.5)/-/18.5(24.8)
PUMA MX2100ST/LST	8	540 (21.3)	1020 / 1520 (40.2 / 59.8)	5000 / 12000	22(29.5)/22(29.5)/18.5(24.8)
PUMA MX2600	10	760 (29.9)	1540 (60.6)	4000 / 12000	26 (34.9) / - / 22 (29.5)
PUMA MX2600S / ST	10	760 (29.9)	1540 (60.6)	4000 / 12000	26(34.9)/26(34.9)/22(29.5)
PUMA MX2600T	10	760 (29.9)	1540 (60.6)	4000 / 12000	26(34.9)/-/22(29.5)
PUMA MX3100	12	760 (29.9)	1540 (60.6)	3000 / 12000	30(40.2)/-/22(29.5)
PUMA MX3100S	12	760 (29.9)	1540 (60.6)	3000 / 4000 / 12000	30(40,2)/26(34,9)/22(29,5)
PUMA SMX2600	10	660 (26.0)	1540 (60.6)	4000 / 12000	26(34.9)/-/26.(34.9)
PUMA SMX2600S	10	660 (26.0)	1540 (60.6)	4000 / 12000	26(34.9)/26(34.9)/26(34.9)
PUMASMX3100	12	660 (26.0)	1540 (60.6)	3000 / 12000	30 (40.2) / - / 26 (34.9)
PUMA SMX3100S	12	660 (26.0)	1540 (60.6)	3000 / 4000 / 12000	30(40.2)/26(34.9)/26(34.9)

S: Sub spindle T: Turret

PUMAV400 / 550

Heavy duty vertical turning center featuring heavily-ribbed and exclusive bed. Easy tooling system provides the fastest chip-to-chip time.



Machine	Chuck (inch)	Max. Tuming Dia. mm (inch)	Max. Turning Length mm (inch)	Spindle Speed (r/min)	Motor* kW (Hp)				
PUMA V400	12	496 (19.5)	461 (18.1)	3000	22 / 18.5 (29.5 / 24.8)				
PUMA V400M	12	420 (16.5)	400 (15.7)	3000	22 / 18.5 (29.5 / 24.8)				
PUMA V400-2SP	12	496 (19.5)	461 (18.1)	3000	22 / 18.5 + 22 / 18.5 (29.5 / 24.8) + (29.5 / 24.8)				
PUMA V400P	12	496 (19.5)	461 (18.1)	3000	22 / 18.5 (29.5 / 24.8)				
PUMA V550	15	740 (29.1)	750 (29.5)	2000	37 / 30 (49.7 / 40.3)				
PUMA V550M	15	800 (31.5)	750 (29.5)	2000	37 / 30 (49.7 / 40.3)				
PUMA V550-2SP	15	740 (29.1)	750 (29.5)	2000	37 / 30 + 37 / 30 (49.7 / 40.3) + (49.7 / 40.3)				
	M: Milling 2SP: Twin spindle * 30min/Cont.								

PUMAVT450 / 750 / 900 / 1100

The PUMA VT seires are designed for long for long term accuracy, heavy duty cutting and to minimize flooe space. Its powerful spindle drives, meehanite casting and integral box guide way provide unsurpassed rididity.



Machine	Chuck (inch)	Max. Turning Dia. mm (inch)	Max. Turning Length mm (inch)	Spindle Speed (r/min)	Motor* kW(Hp)
PUMA VT450	12	450 (17.7)	450 (17.7)	2500	22 / 18.5 (29.5 / 24.8)
PUMA VT450-2SP	12	450 (17.7)	450 (17.7)	2500	22 / 18.5 + 22 / 18.5 (29.5 / 24.8) + (29.5 / 24.8)
PUMA VT450M	12	450 (17.7)	450 (17.7)	2500	22 / 18.5 (29.5 / 24.8)
PUMA VT450M-2SP	12	450 (17.7)	450 (17.7)	2500	22 / 18.5 + 22 / 18.5 (29.5 / 24.8) + (29.5 / 24.8)
PUMA VT750	15	720 (28.3)	760 (29.9)	2000	30 / 22 (40.3 / 29.5)
PUMA VT750-2SP	15	720 (28.3)	760 (29.9)	2000	30 / 22 + 30 / 22 (40.3 / 29.5) + (40.3 / 29.5)
PUMA VT750M	15	740 (29.1)	760 (29.9)	2000	30 / 22 (40.3 / 29.5)
PUMA VT750M-2SP	15	740 (29.1)	760 (29.9)	2000	30 / 22 (40.3 / 29.5)
PUMA VT900	24	900 (35.4)	850 (33.5)	1800	45 / 37 (60.4 / 49.7)
PUMA VT900-2SP	24	900 (35.4)	850 (33.5)	1800	45 / 37 + 45 / 37 (60.4 / 49.7) + (60.4 / 49.7)
PUMA VT900M	24	900 (35.4)	850 (33.5)	1800	45 / 37 (60.4/49.7)
PUMA VT900M-2SP	24	900 (35.4)	850 (33.5)	1800	45 / 37 + 45 / 37 (60.4 / 49.7) + (60.4 / 49.7)
PUMA VT1100	32	1100 (43.4)	1000 (39.4)	850	60 / 55 / 45** (80.5 / 73.8 / 60.4)
PUMA VT1100M	32	1100 (43.4)	1000 (39.4)	850	60 / 55 / 45** (80.5 / 73.8 / 60.4)

M: Milling 2SP: Twin spindle * 30min/Cont. ** 10min/30min/Cont.

PUMAVTS 1214 / 1620

aHeavy duty and high precision, large vertical turning center with Ram head spindle designed to delover superior performance.



Machine	Max. Turning Dia. mm (inch)	Max. Turning Height mm (inch)	Table Speed (r/min)	Motor* kW (hp)
PUMA VTS1214 / M	1350 (53.1)	814 (32.0)	1~630	60 / 55 / 45 (80.5 / 73.8 / 60.4)
PUMA VTS1620 / M	2000 (78.7)	1556 (61.3)	1~250	45 / 37.5 ** (60.4 / 50.3)

M: Milling * 10min/30min/Cont. ** 30min/Cont.

PUMA ST 20G / 20GS / 26GS / 32G / 32GS / 35GS

 $\operatorname{\mathsf{PUMA}}\operatorname{\mathsf{ST}}$ series machines can turn, mill and drill all in one operation.



Machine	Max. Tuming Dia. mm (inch)	Max. Turning Lenght mm (inch)	Tool Storage	Main Spindle Motor [Built-in]* kW (Hp)	Sub Spindle Motor** [Built-in] kW (Hp)
PUMA ST20G	20 (0.8)	200 (7.9)	24	3.7 / 2.2 (5.0 / 3.0)	2.2 / 1.5 (3.0 / 2.0)
PUMA ST20GS	20 (0.8)	200 (7.9)	24	3.7 / 2.2 (5.0 / 3.0)	2.2 / 1.5 (3.0 / 2.0)
PUMA ST26GS	26 (1.0)	200 (7.9)	22 { 27 }	5.5 / 2.2 (7.4 / 3.0)	2.2 / 1.5 (3.0 / 2.0)
PUMA ST32G	32 (1.3)	320 (12.6)	24	7.5 / 5.5 (10.1 / 7.4)	3.7 / 2.2 (5.0 / 3.0)
PUMA ST32GS	32 (1.3)	300 (11.8)	24	7.5 / 5.5 (10.1 / 7.4)	3.7 / 2.2 (5.0 / 3.0)
PUMA ST35GS	35 (1.4)	300 (11.8)	21	7.5 / 5.5 (10.1 / 7.4)	3.7 / 2.2 (5.0 / 3.0)

{}: Option * 30min/Cont. ** 15min/Cont.

Product Full Line-up

Full Line-up of Products Turning Center

Machining Center

Double Column Machining Center Boring Machine

Optimal Technology Easy Operation Package Applications

Global Support Network Overseas Supplies System

Machining Center

Tapping Center / High productivity Vertical Machining Center / Heavy Duty Vertical Machining Center / 5-axis Vertical Machining Center

T4000 / DT360D

It is a compact, high speed drill / tap center with heavy duty construction for rigidity and high performance



Machine	X/Y/Z Travel mm (inch)	Table Size mm (inch)	spindle speed r/min	Tool Storage	Motor* kW(Hp)
T4000	520 / 400 / 350 (20.5 / 15.7 / 13.8)	650 x 400 (25.6 x 15.7)	12000 {24000}	21	13 / 7.5 / 5.5 / 3.7 (17.4 / 10.1 / 7.4 / 5.0)
T4000L	700 / 400 / 350 (27.6 / 15.7 / 13.8)	850 x 400 (33.5 x 15.7)	12000 {24000}	21	13 / 7.5 / 5.5 / 3.7 (17.4 / 10.1 / 7.4 / 5.0)
DT 360D	520 / 360 / 350 (20.5 / 14.2 / 13.8)	2-650 x 375 (2-25.6 x 14.8)	12000 {15000, 24000}	14	7.5 / 5.5** (10.1 / 7.4)
DT 360D/40	520 / 360 / 320 (20.5 / 14.2 / 12.6)	2-650 x 375 (2-25.6 x 14.8)	12000	14	7.5 / 5.5** (10.1 / 7.4)
					{}: Option

* S3 15% / S3 25% / 30min / Cont. ** 30min / Cont.

DNM 400 II / 500 II / 650 II / 750 II

The global standard in vertical machining center which is designed for increased productivity, high precision and unsurpassed performance.



Machine	X/Y/ZTravel mm (inch)	Table Size mm (inch)	spindle speed (r/min)	Tool Storage	Motor* kW(Hp)
DNM 400a	635 / 435 / 510 (25.0 / 17.1 / 20.1)	790 x 435 (31.1 x 17.1)	8000	20	11 / 7.5 (14.8 / 10)
DNM 400 I	762 / 435 / 510 (30.0 / 17.1 / 20.1)	920 x 435 (36.2 x 17.1)	8000 { 12000 }	30 { cam 40 }	15 / 11** (20.1 / 14.8)
DNM 500 II	1020 / 540 / 510 (40.2 / 21.3 / 20.1)	1200 x 540 (47.2 x 21.3)	8000{12000}	30 { cam 40 }	15 / 11** (20.1 / 14.8)
DNM 500/50 I	1020 / 540 / 510 (40.2 / 21.3 / 20.1)	1200 x 540 (47.2 x 21.3)	8000	24	22 / 11** (29.5 / 14.8)
DNM650 Ⅱ	1270 / 670 / 625 (50.0 / 26.4 / 24.6)	1300 x 670 (51.2 x 26.4)	8000{12000}	30 { cam 40 }	18.5 / 15*** (24.8 / 20.1)
DNM 650P	1400 / 670 / 625 (55.1 / 26.4 / 24.6)	1500 x 680 (59.1 x 26.8)	8000{12000}	30{40}	18.5 / 15*** (24.8 / 20.1)
DNM 650/50 I	1270 / 670 / 625 (50.0 / 26.4 / 24.6)	1300 x 670 (51.2 x 26.4)	8000	24{30}	22 / 11** (29.5 / 14.8)
DNM 750 I	1630 / 762 / 650 (54. 2 / 30.0 / 25.6)	1630x760 (64.2x29.9)	8000{12000}	30 { 40, 60 }	18.5 / 15*** (24.8 / 20.1)
DNM 750L II	2160 / 762 / 650 (85.0 / 30.0 / 25.6)	2160x760 (85.0x29.9)	8000 { 12000 }	30 { 40, 60 }	18.5 / 15*** (24.8 / 20.1)
DNM 750/50 I	1630 / 762 / 650 (54. 2 / 30.0 / 25.6)	1630x760 (64.2x29.9)	8000{1000}	24{30}	18.5 / 7.5**** (24.8 / 10)
DNM 750L/50 I	2160 / 762 / 650 (85.0 / 30.0 / 25.6)	2160x760 (85.0x29.9)	8000{1000}	24{30}	18.5 / 7.5**** (24.8 / 10)
DNM 400HS	762 / 435 / 510 (30.0 / 17.1 / 20.1)	920 x 435 (36.2 x 17.1)	15000 {12000, 20000}	30 { cam 40 }	22 / 18.5 (29.5 / 24.8)
DNM 500HS	1020 / 540 / 510 (40.2 / 21.3 / 20.1)	1200 x 540 (47.2 x 21.3)	15000 {12000, 20000}	30 { cam 40 }	22 / 18.5 (29.5 / 24.8)
DNM 650HS	1270 / 670 / 625 (50.0 / 26.4 / 24.6)	1300 x 670 (51.2 x 26.4)	15000 {12000, 20000}	30 { cam 40 }	22 / 18.5 (29.5 / 24.8)
					() 04:

* 15min / Cont. ** S3 25% / Cont. *** S3 60% / Cont. **** 5min / Cont.

Mynx 5400 / 6500 / 7500 / 9500

Economical and user-friendly vertical machining center with heavy duty and long term accuracy.



Machine	X / Y / Z Travel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW(Hp)
Mynx 5400	1020 / 540 / 530 (40.2 / 21.3 / 20.9)	1200 x 540 (47.2 x 21.3)	8000 { 12000 }	30{40}	15 / 11 (20.1 / 14.8)
Mynx 5400/50	1020 / 540 / 530 (40.2 / 21.3 / 20.9)	1200 x 540 (47.2 x 21.3)	6000 { 8000 }	24	15 / 15 /11** (20.1 / 20.1 / 14.8)
Mynx 6500	1270 / 670 / 625 (50.0 / 26.4 / 24.6)	1400 x 670 (55.1 x 26.4)	8000{12000}	30 { 40 }	15 / 11 (20.1 / 14.8)
Mynx 6500/50	1270 / 670 / 625 (50.0 / 26.4 / 24.6)	1400 x 670 (55.1 x 26.4)	6000 { 8000 }	24{30}	15 / 15 /11** (20.1 / 20.1 / 14.8)
Mynx 7500	1525 / 762 / 62 (60.0 / 30.0 / 24.6)	1600 x 750 (63.0 x 29.5)	8000{12000}	30{40}	22 / 15*** (29.5 / 20.1)
Mynx 7500/50	1525 / 762 / 625 (60.0 / 30.0 / 24.6)	1600 x 750 (63.0 x 29.5)	6000 { 8000 }	24 { 40 }	18.5 / 15 (24.8 / 20.1)
Mynx 9500	2500 / 950 / 850	2500 x 950	6000{10000}	30 { 40 }	22 / 18.5 { 30 / 25 } (29.5 / 24.8 {40.2 / 33.5})

{}:Option

* 30min / Cont. ** 15min/30min/Cont. *** 15min / Cont.

VC 430 / 510

Easy-to-operate, compact & highly productive with fast and accuracy. Unique traveling column designe with Rotating dual pallet.



Machine	X/Y/ZTravel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW (Hp)
VC 430	560 / 430 / 570 (22.0 / 16.7 / 22.4)	2-712 x 477 (2-28.0 x 18.8)	10000r/min {12000}	Geared Motor Type: 30 { 40 } Servo Motor Type: 30 { 40 }	18.5 / 15 (24.8 / 20.1)
VC 510	762 / 516 / 570 (30.0 / 20.3 / 22.4)	2-860 x 570 (2-33.9 x 22.4)	10000r/min {6000,12000, 14000}	Geared Motor Type: 30 { 40 } Servo Motor Type: 30 { 40 }	18.5 / 15 (24.8 / 20.1)
					{}: Optior
					* 30min / Cont

DNM 200/5AX / DNM 350/5AX / VC 630/5AX / FM 200/5AX linear / FM 350/5AX linear

5-Axis Machining provide high productivity and precision capability with various high speed control functions for not only small machine but large die and mold.



Machine	X/Y/ZTravel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW (Hp)
DNM 200 / 5AX	400 / 435 / 500 (15.7 / 17.1 / 19.7)	Ø200 (Ø7.9)	12000	Geared Motor Type: 30 { 40 } Servo Motor Type: 30 { 40 }	18.5 / 11 (24.8 / 14.8)
DNM 350 / 5AX	600 / 655 / 500 (23.6 / 25.8 / 19.7)	Ø350 (Ø13.8)	12000 {20000}	Geared Motor Type: 30 { 40, 60 } Servo Motor Type: 30 { 40 }	18.5 / 11 (24.8 / 14.8)
VC 630 / 5AX	650 / 765 / 520 (25.6 / 30.1 / 20.5)	Ø630 X 590 (Ø24.8 x 23.2)	12000 {20000,30000}	40 {60,81,101,121}	FANUC: 22 / 18.5**(29.5 / 24.8) HEIDENHAIN: 28 / 24*** (37.5 / 32.2)
FM 200 / 5AX linear	200 / 340 / 300 (7.9 / 13.4 / 11.8)	Ø200 (Ø7.9)	40000	24	12.6**** (16.9)
FM 350 / 5AX <i>linear</i>	400 / 600/ 350 (15.7 / 23.6 / 13.8)	Ø350 (Ø13.8)	40000	40	12.6**** (16.9)

{}:Option

* 10min / Cont. **S3 25%/Cont. ***S6 40%/Cont. **** Cont.

Product Full Line-up

Full Line-up of Products Turning Center

Machining Center

Double Column Machining Center Boring Machine

Optimal Technology Easy Operation Package Applications

Global Support Network Overseas Supplies System

Machining Center

Multi Purpose Vertical Machining Center / Die & Mold Vertical Machining Center

VCF850

Multi Purpose Vertical Machining Center



Machine	X/Y/ZTravel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW (Hp)
VCF 850 / SR	2000 / 850 / 800 (78.7 / 33.5 / 31.5)	3500 x 800 (137.8 x 31.5)	12000	30 { 60 }	32 / 24 (42.9 / 32.2)
VCF850L/LSR	3000 / 850 / 800 (118.1 / 33.5 / 31.5)	3500 x 870 (137.8 x 34.3)	12000	30{60}	32 / 24 (42.9 / 32.2)
					∫ \. Ontion

VM 5400 / 6500 (#40)

VM series are designed for Die & Mold machining. Also VM series support optimal and total solution for die & mold machining industry.



Machine	X / Y / Z Travel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW(Hp)
VM 5400	1020 / 540 / 530 (40.2 / 21.3 / 20.9)	1200 x 540 (47.2 x 21.3)	12000	30 { 40 }	15.6 / 15.6 (20.9 / 20.9)
VM 6500	1270 / 670 / 625 (50.0 / 26.4 / 24.6)	1400 x 670 (55.1 x 26.4)	12000	30 { 40 }	15.6 / 15.6 (20.9 / 20.9)
					{}: Option

{ } : Option * 30min / Cont.

VM 560 / 750 / 960 / 1260 (#50)

VM series are designed for Die & Mold machining. Also VM series support optimal and total solution for die & mold machining industry.



Machine	X/Y/ZTravel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW(Hp)
VM 560	1050 / 560 / 560 (41,3 / 22,0 / 22,0)	1600 x 560 (63.0 x 22.0)	12000	30	22 / 18.5** (29.5 / 24.8)
VM 750	1500 / 750 / 800 (59.1 / 29.5 / 31.5)	1600 x 800 (63.0 x 31.5)	6000{8000}	30{40}	18.5 / 15 (24.8 / 20.1)
VM 750L	1800 / 750 / 800 (70.9 / 29.5 / 31.5)	1900 x 800 (74.8 x 31.5)	6000 {8000, 12000}	30 { 40 }	18.5 / 15 (24.8 / 20.1)
VM 960	2000 / 960 / 800 (78.7 / 37.8 / 31.5)	2400 x 950 (94.5 x 37.4)	6000 {8000, 12000}	30{40}	18.5 / 15 (24.8 / 20.1)
VM 960L	2400 / 960 / 800 (94.5 / 37.8 / 31.5)	2600 x 950 (102.4 x 37.4)	6000 {8000, 12000}	30{40}	18.5 / 15 (24.8 / 20.1)
VM 1260	2500 / 1260 / 900 (98.4 / 49.6 / 35.4)	2800 x 1260 (110.2 x 49.6)	6000 {8000, 12000}	40	22 / 18.5 (29.5 / 24.8)
					{}: Option

* 30min / Cont. ** 15min / Cont.

DVM 500 II /650 II

Developed to provide high precision, high performance and high effciency for die & mold machining.



Machine	X/Y/ZTravel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW(Hp)
DVM 500 II	1020 / 540 / 510 (40.2 / 21.3 / 20.1)	1200 x 540 (47.2 x 21.3)	20000	30{40}	22 / 11 (29.5 / 14.8)
DVM 650 II	1270 / 670 / 625 (50.0 / 26.4 / 24.6)	1300 x 670 (51.2 x 26.4)	20000	30{40}	22 / 11 (29.5 / 14.8)

{}: Option
* S3 15%,10min / Cont.

NX 4500 II /5500 II /6500 II

 $High\ precision\ vertical\ machining\ center\ specially\ developed\ for\ die\ \&\ mold\ machining\ ability.$



Machine	X/Y/ZTravel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW(Hp)
NX 4500 I	600 / 450 / 400 (23.6 / 17.7 / 15.7)	800 x 500 (31.5 x 19.7)	20000 {30000,40000}	24	22 / 11 (29.5 / 14.8)
NX 5500 I	900 / 550 / 500 (35.4 / 21.7 / 19.7)	1000 x 550 (39.4 x 21.7)	20000 {30000,40000}	30	22 / 11 (29.5 / 14.8)
NX 6500 I	1050 / 650 / 550 (41.3 / 25.6 / 21.7)	1200 x 650 (47.2 x 25.6)	20000 {30000,40000}	30	22 / 11 (29.5 / 14.8)
	3				{}: Option

{}: Option * 10min 15% / Cont.

FM 400 linear

High precision and high speed die & mold machining center for small and complex precision parts.



Machine	X / Y / Z Travel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW(Hp)
FM 400 linear	400 / 600 / 350 (15.7 / 23.6 / 13.8)	500 x 600 (19.7 x 23.6)	40000	40	12.6 (16.9)
					* Cont

* Con

Product Full Line-up

Full Line-up of Products Turning Center

Machining Center

Double Column Machining Center Boring Machine

Optimal Technology Easy Operation Package Applications

Global Support Network Overseas Supplies System

Machining Center

Heavy Duty Horizontal Machining Center / High Speed Horizontal Machining Center

HC 400 II / 500 II

High performance horizontal machining center featuring easy operation and compact layout. Boast of 8000 r/min spindle speed and 40m/min rapid traverse rate.



Machine	X/Y/ZTravel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW(Hp)
HC 400 Ⅱ	600 / 560 / 565	400 x 400	8000	40	18.5 / 11
	(23.6 / 22.0 / 22.2)	(15.7 x 15.7)	{12000}	{60, 80, 120, 170, 262}	(24.8 / 14.8)
HC 500 Ⅱ	850 / 700 / 750	500 x 500	8000	40	18.5 / 11
	(33.5 / 27.6 / 29.5)	(19.7 x 19.7)	{12000}	{60, 80, 120, 170, 262}	(24.8 / 14.8)
					() 6

{}: Option
* 15min / Cont.

HP 4000 II / 5100 II

The HP seroes offers high speed & unsurpassed productivity.



Machine	X/Y/ZTravel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW (Hp)
HP 4000 Ⅱ	600 / 560 / 600 (23.6 / 22.0 / 23.6)	400 x 400 (15.7 x 15.7)	14000 { 20000 }	40 {60, 80, 120, 170, 262}	22 / 18.5 {18.5 / 15} (29.5 / 24.8 {24.8 / 20.1})
HP5100 Ⅱ	850 / 700 / 750 (33.5 / 27.6 / 29.5)	500×500 (19.7×19.7)	14000 { 20000 }	40 {60, 80, 120, 170, 262}	22 / 18.5 {18.5 / 15} (29.5 / 24.8 {24.8 / 20.1})

{}: Option * 30min/cont.

NHP 5500 / 6300 / 8000

Beautiful integration of all functions by horizontal machining centers with advanced new technology.



Machine	X/Y/ZTravel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW(Hp)
NHP 5500	800 / 750 / 850 (31.5 / 29.5 / 33.5)	500 x 500 {630 x 630} (19.7 x 19.7 {24.8 x 24.8})	10000 {6000, 15000}	40 {60, 90, 120, 150, 196, 256, 316, 376}	45 / 25 {37 / 25, 37 / 30} (60.3 / 33.5 {49.6 / 33.5, 49.6 / 40.2})
NHP 6300	1050 / 900 / 1000 (41.3 / 35.4 / 39.4)	630 x 630 {800 x 800} (24.8 x 24.8 {31.5 x 31.5})	10000 {6000, 15000}	40 {60, 90, 120, 150, 196, 256, 316, 376}	45 / 25 {37 / 25, 37 / 30} (60.3 / 33.5 {49.6 / 33.5, 49.6 / 40.2})
NHP 8000	1400 / 1200 / 1370 (55.1 / 472.4 / 53.9)	800 x 800 {800 x 1000} (31.5 x 31.5 {31.5 x 39.4})	10000 {6000, 15000}	40 {60, 90, 120, 150, 196, 256, 316, 376}	45 / 25 {37 / 25, 37 / 30} (60.3 / 33.5 {49.6 / 33.5, 49.6 / 40.2})

{}: Option * S3 25%/cont.

HM 5000

Heavy duty and large horizontal machining center featuring massive meehanite cast iron bed and 3-speed geared spindle head.



Machine	X/Y/ZTravel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW (Hp)
HM 5000	800 / 650 / 650 (31.5 / 25.6 / 25.6)	500 x 500 (19.7 x 19.7)	6000 {8000}	40 {60, 90, 120, 196, 256, 324}	15 / 11 {18.5 / 15} (20.1 / 14.8 {24.8 / 20.1})
					() 0 "

{}: Option * 30min/cont.

NHM 5000 / 6300 / 8000

The new generation world-class NHM series of heavy-duty horizontal machining centers.



Machine	X/Y/ZTravel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* (Cont./Short) kW (Hp)
NHM 5000	800 / 700 / 850 (31.5 / 27.6 / 33.5)	500 x 500 {630 x 630) (19.7 x 19.7 {24.8 x 24.8})	6000 {8000}	60 {90, 120, 150, 196, 256, 316, 376}	25 / 15* {35 / 22*, 37 / 30**} (33.5 / 20.1 {46.9 / 29.5, 49.6 / 40.2})
NHM 6300	1050 / 850 / 1000 (41.3 / 33.5 / 39.4)	630 x 630 {800 x 800} (24.8 x 24.8 {31.5 x 31.5})	6000 {8000}	60 {90, 120, 150, 196, 256, 316, 376}	35 / 22*** {37 / 30**, 35 / 22****} (46.9 / 29.5 {49.6 / 40.2, 46.9 / 29.5})
NHM 8000	1400 / 1050 / 1200 (55.1 / 41.3 / 47.2)	800 x 800 {800 x 1000} (31.5 x 31.5 {31.5 x 39.4})	6000 {8000}	60 {90, 120, 150, 196, 256, 316, 376}	35 / 22*** {37 / 30**, 35 / 22****} (46.9 / 29.5 {49.6 / 40.2, 46.9 / 29.5})

{}: Option

* S3 25%/cont. **30 min./cont. *** S3 10%/cont. ****S3 15%/cont.

HM 1000 / 1250

The largest horizontal machining center featuring heavy duty and accuracy on extremely rigid base.



Machine	X/Y/Z/WTravel mm (inch)	mm (inch)					Motor* kW (Hp)
HM 1000	2100 / 1250 / 1250 / - (82.7 / 49.2 / 49.2 / -)	1000 x 1000 {1250 x 1000} (39.4 x 39.4 {49.2 x 39.4})	6000 {8000}	60 {90,120,196,256}	26 / 22 {37 / 30, 26 / 22} (34.9 / 29.5 {49.6 / 40.2, 34.9 / 29.5})		
HM 1250	2100 / 1400 / 1400 / 300 (82.7 / 55.1 / 55.1 / 11.8)	1250×1250 {1250×1000, 1000×1000} (49.2×49.2 {49.2×39.4, 39.4×39.4})	6000 {8000}	60 {90,120,196}	26 / 22 {37 / 30, 26 / 22} (34.9 / 29.5 {49.6 / 40.2, 34.9 / 29.5})		
HM 1250W	2100 / 1400 / 1400 / 300 (82.7 / 55.1 / 55.1 / 11.8)	1250 x 1250 (49.2 x 49.2)	3000	60 {90, 120, 196}	45 / 37 (60.3 / 49.6)		
					{}: Option		

* 30min/cont.

Product Full Line-up

Full Line-up of Products Turning Center Machining Center Double Column Machining Center Boring Machine

Optimal Technology Easy Operation Package Applications

Global Support Network Overseas Supplies System

Double Column Machining Center

3 axes Double Column Machining Center / Five Face Double Column Machining Center

BM 2740 series

BM 2740 is designed for the production of LCD / LED components and parts made from flat Aluminium sheet, such as Aerospace components.



Machine	X/Y/ZTravel mm (inch)	B/C axis rotation angle (deg)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor (Cont./Short) kW (Hp)
BM 2740	4000 / 2700 / 800 (157.5 / 106.3 / 31.5)	-	4000 x 2500 (157.5 x 98.4)	10000	40{60}	30 (30 min) / 25(Cont.) (40.2 / 33.5)
BM 2740M	4000 / 2700 / 800 (157.5 / 106.3 / 31.5)		4000 x 2500 (157.5 x 98.4)	12000	40	30 (30 min) / 25(Cont.) (40.2 / 33.5)
BM 2740U	4000 / 2500 / 700 (157.5 / 98.4 / 27.6)	±110/±220	4000 x 2500 (157.5 x 98.4)	18000	60	40 (53.6)

{}:Option

DCM series

DCM series are the concept machining centers for all machining processes, from heavy cutting to high-accuracy finishing for mold & die works and large complex parts.



Machine	X / Y / Z Travel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Effective width between column mm (inch)	Motor* (cont. / 15 min) kW (Hp)
DCM 2740F	4100 / 2200 / 1650 (161.4 / 86.6 / 65.0)	2200 x 4100 (86.6 x 161.4)	Built-in 6000 {Built-in 12000, Gear driven 4000, 6000}	2700	25 / 22 {Built-in 30 / 25**, Gear driven 22 / 18.5, 26 / 22, 37 / 30**} (33.5 / 29.5 {40.2 / 33.5, Gear driven 29.5 / 24.8, 34.9 / 29.5, 49.6 / 40.2})
DCM 2750F	5100 / 2200 / 1650 (200.8 / 86.6 / 65.0)	2200 x 5100 (86.6 x 200.8)	Built-in 6000 {Built-in 12000, Gear driven 4000, 6000}	2700	25 / 22 {Built-in 30 / 25**, Gear driven 22 / 18.5, 26 / 22, 37 / 30**} (33.5 / 29.5 {40.2 / 33.5, Gear driven 29.5 / 24.8, 34.9 / 29.5, 49.6 / 40.2})
DCM 2760F	6100 / 2200 / 1650 (240.2 / 86.6 / 65.0)	2200 x 6100 (86.6 x 240.2)	Built-in 6000 {Built-in 12000, Gear driven 4000, 6000}	2700	25 / 22 {Built-in 30 / 25**, Gear driven 22 / 18.5, 26 / 22, 37 / 30**} (33.5 / 29.5 {40.2 / 33.5, Gear driven 29.5 / 24.8, 34.9 / 29.5, 49.6 / 40.2})
DCM 2780F	8100 / 2200 / 1650 (318.9 / 86.6 / 65.0)	2200 x 8100 (86.6 x 318.9)	Built-in 6000 (Built-in 12000, Gear driven 4000, 6000)	2700	25 / 22 {Built-in 30 / 25**, Gear driven 22 / 18.5, 26 / 22, 37 / 30**} (33.5 / 29.5 {40.2 / 33.5, Gear driven 29.5 / 24.8, 34.9 / 29.5, 49.6 / 40.2})
DCM 3250F	5100 / 2700 / 1650 (200.8 / 106.3 / 65.0)	2700 x 5100 (106.3 x 200.8)	Built-in 6000 (Built-in 12000, Gear driven 4000, 6000)	3200	25 / 22 {Built-in 30 / 25**, Gear driven 22 / 18.5, 26 / 22, 37 / 30**} (33.5 / 29.5 {40.2 / 33.5, Gear driven 29.5 / 24.8, 34.9 / 29.5, 49.6 / 40.2})
DCM 3260F	6100 / 2700 / 1650 (240.2 / 106.3 / 65.0)	2700 x 6100 (106.3 x 240.2)	Built-in 6000 {Built-in 12000, Gear driven 4000, 6000}	3200	25 / 22 {Built-in 30 / 25**, Gear driven 22 / 18.5, 26 / 22, 37 / 30**} (33.5 / 29.5 {40.2 / 33.5, Gear driven 29.5 / 24.8, 34.9 / 29.5, 49.6 / 40.2})
DCM 3280F	8100 / 2700 / 1650 (318.9 / 106.3 / 65.0)	2700 x 8100 (106.3 x 318.9)	Built-in 6000 {Built-in 12000, Gear driven 4000, 6000}	3200	25 / 22 {Built-in 30 / 25**, Gear driven 22 / 18.5, 26 / 22, 37 / 30**} (33.5 / 29.5 {40.2 / 33.5, Gear driven 29.5 / 24.8, 34.9 / 29.5, 49.6 / 40.2})
DCM 3780F	8100 / 3200 / 1650 (318.9 / 126.0 / 65.0)	3200 x 8100 (126.0 x 318.9)	Built-in 6000 (Built-in 12000, Gear driven 4000, 6000)	3700	25 / 22 {Built-in 30 / 25**, Gear driven 22 / 18.5, 26 / 22, 37 / 30**} (33.5 / 29.5 {40.2 / 33.5, Gear driven 29.5 / 24.8, 34.9 / 29.5, 49.6 / 40.2})
DCM 37100F	10100 / 3200 / 1650 (397.6 / 126.0 / 65.0)	3200 x 10100 (126.0 x 397.6)	Built-in 6000 {Built-in 12000, Gear driven 4000, 6000}	3700	25 / 22 (Built-in 30 / 25**, Gear driven 22 / 18.5, 26 / 22, 37 / 30**) (33.5 / 29.5 (40.2 / 33.5, Gear driven 29.5 / 24.8, 34.9 / 29.5, 49.6 / 40.2))

{}:Option

Boring Machine

Duplex Spindle Horizontal Boring Machining Center / Horizontal Boring Mill

DBC 110 / 130 / 250

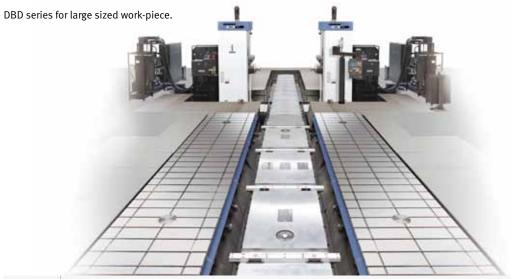
DBC series harmonizes heavy-duty cutting capability with the perfect balance of power and accuracy.



Machine	X/Y/Z/WTravel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor*kW (Hp)
DBC 110S	2000 / 1500 / 1200 / 500 (78.7 / 59.1 / 47.2 / 19.7)	1400 x 1600 (55.1 / 63.0)	3000	{40, 60, 90}	26 / 22 {30 (15min.) / 22} (34.9 / 29.5 {40.2 (15min.) / 29.5})
DBC 130S	2000 / 1500 / 1200 / 600 (78,7 / 59.1 / 47.2 / 23.6)	1400 x 1600 (55.1 / 63.0)	2500	{40, 60, 90}	37 / 30 (49.6 / 40.2)
DBC 130SL	2500 / 2000 / 1500 / 600 (98.4 / 78.7 / 59.1 / 19.7)	1400 x 1800 (55.1 / 70.9)	2500	{40, 60, 90}	37 / 30 (49.6 / 40.2)
DBC 110 II	2500 / 2000 / 1500 / 550 (98.4 / 78.7 / 59.1 / 21.7)	1400 x 1800 (55.1 / 70.9)	4000	{40, 60, 90}	26 / 22 {30 (15min.) / 22, 45 / 37} (34.9 / 29.5 {40.2 (15min.) / 29.5, 60.3 / 49.6})
DBC 130 Ⅱ	3000 / 2000 / 1600 / 700 (118.1 / 63.0 / 47.2 / 27.6)	1600 x 1800 (630. / 70.9)	2500	{40, 60, 90}	26 / 22 {30 (15min.) / 22, 45 / 37} (34.9 / 29.5 {40.2 (15min.) / 29.5, 60.3 / 49.6})
DBC 130L II	4000 / 2500 / 2000 / 700 (157.5 / 98.4 / 78.7 / 27.6)	1600 x 1800 {1800 x 2000, 2000 x 2200} (630. / 70.9 {70.9 x 63.0, 63.0 x 86.6})	2500	{40, 60, 90}	26 / 22 {30 (15min.) / 22, 45 / 37} (34.9 / 29.5 {40.2 (15min.) / 29.5, 60.3 / 49.6})
DBC 250 II	3000 / 2000 / 1600 / 500 (118.1 / 63.0 / 47.2 / 19.7)	1600 x 1800 {1800 x 2000, 2000 x 2200} (630. / 70.9 {70.9 x 63.0, 63.0 x 86.6})	6000	{40, 60, 90}	30 / 22 (40.2 / 29.5)
DBC 250 L II	4000 / 2500 / 2000 / 500 (157.5 / 98.4 / 78.7 / 19.7)	1600 x 1800 {1800 x 2000, 2000 x 2200} (630. / 70.9 {70.9 x 63.0, 63.0 x 86.6})	6000	{40, 60, 90}	30 / 22 (40.2 / 29.5)

{}: Option *30 min./cont. rating

DBD 1270 / 1580



Machine	X / Y / Z Travel mm (inch)	Table Size mm (inch)	Spindle Speed (r/min)	Tool Storage	Motor* kW (Hp)
DBD 1270	7000 / 1500 / 1000 / - (275.6 / 59.1 / 39.4 / -)	1250×7000 (49.2×275.6)	3000	{40 / 60}	26 / 22 {37 / 30} (34.9 / 29.5 {49.6 / 40.2})
DBD 1580	8000 / 2000 / 450 / 500 (315.0 / 78.7 / 17.7 / 19.7)	1500 x 8000 (59.1 x 315.0)	2500	{40 / 60}	26 / 22 {30 (15min)/22} (34.9 / 29.5 {40.2 (15min.) / 29.5})

{}: Option
* 30 min./cont. rating

Product Full Line-up

Full Line-up of Products Turning Center Machining Center Double Column Machining Center Boring Machine

Optimal Technology Easy Operation Package Applications

Global Support Network Overseas Supplies System

Optimal Technology

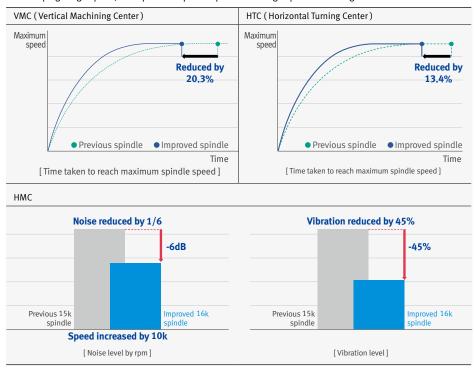


HST (High speed Spindle Technology)

Continuous research and years of know-how of Doosan, offers reliability and convenience to our customers. Worldwide excellent technology has been applied Doosan machine tools will provide you the best solution.

HST / High-speed Spindle Technology

Maximum speed and acceleration/deceleration speed are the two core performance factors of a spindle that affect a machine's productivity. Minimized idle time and maximized operation time are dependent upon how fast the spindle accelerates/decelerates according to the RPM set by the user. By adopting an aluminum pulley to reduce weight and winding switching technology to distribute the proper output at the right timing, Doosan Machine Tools has succeeded in developing a high-speed, static pressure spindle optimized for high-speed machining.

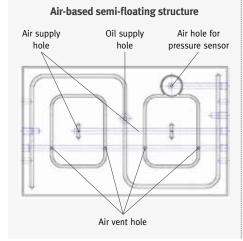




HGT (High rigidity Guideway Technology)

HGT / High-rigidity Guideway Technology

The high-rigidity box guideway installed in Doosan machine tools is equipped with air-based semi-floating technology. Doosan has applied its unique semi-floating sliding plate, which slashes maintenance costs through the reduction of engine oil consumption in addition to the method of floating the column a bit through the combined supply of air and oil. Also, instead of using turcite for easier guideway machining and reduced friction during travel, Doosan's machine tools directly work on the casting surface, resolving the problem of delamination between turcite and casting surface and improving resistance to severe shocks.



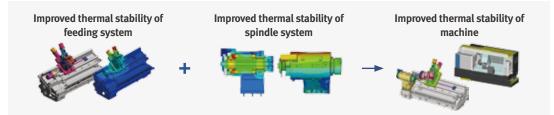




TST (Thermal Stability Technology)

TST / Thermal Stability Technology

Doosan Machine Tools possesses technologies that minimize the impact of plant environments on machine tools, including a variety of technologies related to cooling and pre-load methods, low-heat ball screws, and cooling oil inside the main shaft. By analyzing the heat flow of finished units of these tools, Doosan Machine Tools has identified the flow of heat and installed fans or used coolant at the optimal cooling points to complete a well-balanced machine tool.





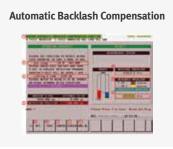
EOT (Easy Operation Technology)

EOT / Easy Operation Technology

Doosan Machine Tools develops and provides various features designed to enhance its machine tool performance and operational convenience in addition to the features inherent in the CNC system. To operational convenience, the EOT technology provides customers with the ATC/APC SETTING - TAIL STOCK - Q-SETTER GUIDE SYSTEM while making the operation of surrounding devices far easier, and the ALARM GUIDANCE & TOOL MANAGEMENT SYSTEM that helps with easy maintenance and repairs. The EOT technology also bolsters accurate and fast machining operations. It maximizes customers' productivity through a variety of outstanding technical features such as the tool center point position compensation and the automatic feed-control optimization feature.









SMT (Smart Monitoring Technology)

SMT/Smart Monitoring Technology

Doosan Machine Tools has developed a smart monitoring feature for those who are concerned about their manufacturing plants while outside. 'Smart-i' sends out a warning message together with information on the relevant machine tool operation through a smartphone whenever a problem with a machine tool arises. As such, it's a CNC that can be used directly in one's hand. Anyone can send program files to the machine tool via a smartphone or edit or store them. The 'alarm and diagnosis feature' notifies users of the causes of malfunction and possible solutions for immediate action, as well as the regular maintenance service and component replacement time. 'Doowin' is a machine tool monitoring and virtual support program developed on the basis of the aforementioned technologies that enables users to monitor multiple machine tools or control an entire plant on a personal computer.







Product Full Line-up

Full Line-up of Products Turning Center Machining Center Double Column Machining Center Boring Machine

Optimal Technology Easy Operation Package Applications

Global Support Network Overseas Supplies System

Doosan Easy Operation Package (EOP)

Doosan Easy Operation Package (EOP) is a smart software program consisting of about 70 convenient features designed to help customers carry out their setting/operation tasks more easily and conveniently. It will help them to improve their productivity through accurate, fast machining operations.

Convenient Control

These software features are designed to enable users to operate their machine tools conveniently. They help users carry out their program setting and scheduling tasks easily through NC screens, manage/handle accessory devices and tools effectively, and fix problems when alarms ring or problems arise.

Program setting

- CALCULATOR
- PATTERN CYCLE FOR DCM
- FNGRAVING
- WORK OFFSET SETTING
- WORK OFFSE - G-CODE LIST
- M-CODE LIST

Operation control

- MACHINE MOVING FOR SETUP
- ATC / APC / AAC SETTING SCREEN
- RENISHAW GUI
- APC SETTING SCREEN
- MATRIX
- MULTI PALLET MAGAZINE (PMG)
- MULTI PALLET STATION(MPS)
- 5APC

Convenient

Control

- TAIL STOCK THRUST SETTING
- PMC SOFT PANEL SWITCH
- Q-SETTER GUIDE (DEVELOPING)
- MULTI FACE SUPPORT

Easy Maintenance

- ALARM GUIDANCE
- ATC RECOVERY HELP
- FASY NC PARAMETER HELP
- TOOL DATA REGISTRY SCREEN
- TOOL MANAGEMENT
- TOOL MANAGEMENT II
- BACKUP CUSTOM DATA
- X MANAGER

TOOL MANAGEMENT



Tool information

- Tool number
- Tool name
- Tool size, status - Manage broken or warning tool
- Swtich tool
- Regist and set manual tool

High Accuracy & Productivity Real-time Monitoring

High Accuracy & high Productivity

This feature helps improve users' productivity by ensuring that they can carry out their machining operations more accurately and efficiently.

- TOOL TABLE
- SMART THERMAL COMPENSATION
- SQUARENESS COMPENSATION
- AUTOMATIC BACKLASH COMPENSATION
- FUNCTION POOL LIST
- DCP-i
- AFC(Adaptive Feed Control)

Real-time Monitoring

This feature enables users to monitor everything that takes place during their machining operations in real time. Users can check their machining progress rates and machining results.

- OPERATION RATE
- SENSOR STATUS MONITOR
- TOOL LOAD MONITOR
- TOOL TABLE
- PRODUCT COUNT
- DOOSAN TOOL LIFE COUNT

DCP-i (Doosan Center Point position Intelligence)



AFC (Adaptive Feed Control)



AFC 'OFF' 02:19



AFC 'ON' 01:49

Applications

Increasing demand for machine tools from various industries such as energy, aerospace, IT, medicine and automotive is spurring us to expand product lineups and develop new machine tools.



Automotive









Medical





Energy





IT





Construction Equipment



Product Full Line-up

Full Line-up of Products Turning Center Machining Center Double Column Machining Center Boring Machine

Optimal Technology Easy Operation Package Applications

Global Support Network Overseas Supplies System



Alco Controls Allied Signal Allied Signal Engines Ambel Precision Manufacturing Co. American Sleeve Bearing Anchor Hocking ATM Specialties B.F. Goodrich Aerospace Baldor Electric Baldor Electric Co. Bath Iron Works Bendix Benz Bimba Manufacturing Bosche **Browning Bosche** Brunswick Buck Chuck Camco Carrier Caterpillar Chicago Roll Clark Equipment Colts Manufacturing

Cooper Power Tools Cushman Dana Dana Spicer Darmark Corp. **Dayton Progress** Dresser E.G. & G. Eaton Elgin Sweeper Emerson Electric Fastenal Inc. Federal Mogal Federal Signal Ford France Compressor Products General Dynamics General Motors George Fisher Foundries **Grimes Engineering Hexatron Engineering** Hydraw Flow

Manufacturing ITT Engineered Valves Jacobs Vehicle Jake Brake Kellogg Crankshaft Kelsey-Hayes Kuhn Industries Kurk Manufacturing TCN Vehicles Division S.r.l. TEKNO S.r.l. VIAR Meccanica S.r.l. Lift-Tech International, Inc. Marathon Electric Company Mason & Hanger Mennies Milwaukee Electric Modern Tooling Outboard Marine Corp. Parker-Hannifin PGI International Sikorsky

Spicer Heavy Axle

Stace Allen Chucks

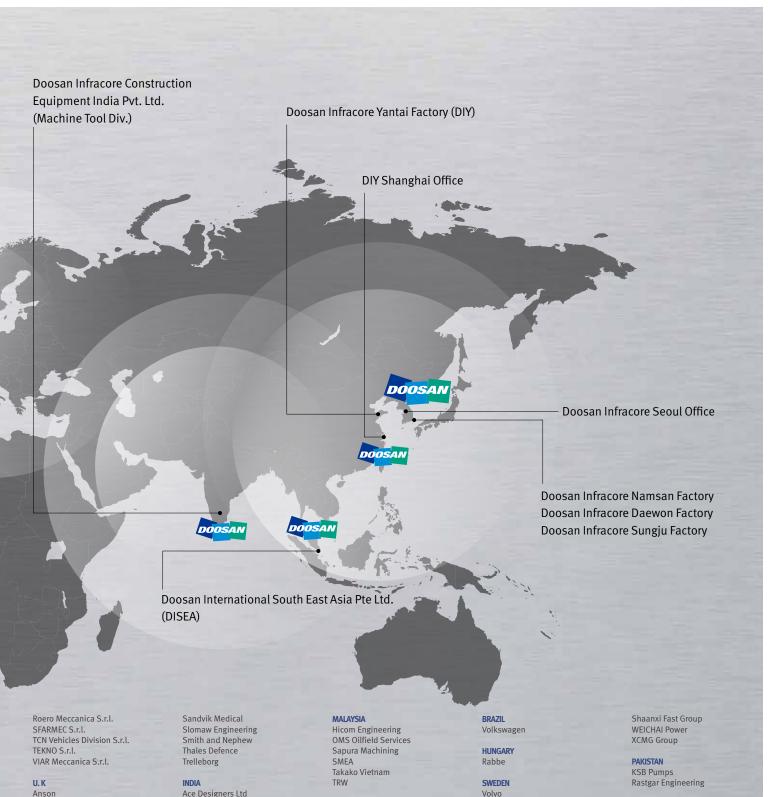
Technical Machine Service Triad Machine Trompler Co. TRW Twin Disk Union Special Corp. **United Technologies** US Axle, Inc. Valentek Olivette Van Corp. Velan Engineering W.D. Lee & Co. WABCO Locomotive Products Watts Industries Westinghouse Electric White Rodgers Zurn Industries

GERMANY

Benz Sohne Deutsche Metallwerke Duspohl Erco Leuchten Fischer Mess-und Regeltechnik Flender AG
Gestra AG
Heraeus
Intra
R & H Alurad Group
Regeltechnik Kornwestheim
Ronal Group

ITALY

A.D.R. S.r.l.
Atomat S.p.A.
Brembo S.p.A. Divisione Dischi
Contarini Leopoldo S.r.l.
Dott. Ing. Mario Cozzani S.r.l.
Franzoni Ruggero
Fucine Rostagno S.p.A.
Manfredini Doviglio & C. S.n.c.
Meccanica Melegari S.r.l.
Mekanotech S.n.c. di
Perissinotto
O/Cava Meccanica S.p.A.
O.M.L. di Antonioli T. &
C.S.a.s.
O.M.G. S.p.A. di Messieri & C.



U.K
Anson
Automatic Components
Bombardier
British Aerospace
Depuy
Firth Rixon
FMC Technologies
GKN
Hewland Engineering
Howdens
Kawasaki Heavy Industries

Nikken Pear Engineering Renishaw Rolls Royce Aerospace Rolls Royce RT Quaife Ace Designers Ltd
Amtek Auto Limited
Apex Auto Limited
BRAKES India Ltd
CRI Pumps Pvt. Ltd
Cummins India Ltd
GNA Enterprises Limited
International Auto Limited
KIRLOSKAR Brothers Ltd
KIRLOSKAR Ebara Pumps Ltd
KIRLOSKAR Oil Engines Ltd
KIRLOSKAR Pneumatic Co. Ltd
Ramkrishna Forgings Limited
Rico Auto Industries Ltd
TATA motors
Wheels India Ltd

SINGAPORE

ASM Front-End Manufacturing

INDONESIA

PT. Inti Ganda Perdanan Group

JAPAN

Komatsu Nissan SNK

THAILAND

Delphi Honda Automobile TRW

IRAN

Mega motors Saipa Malleable

MEXICO Delphi

CHINA FAW Group Flender JAC Group KF Valve KNORR SAIC Sany Group

UAE

Ados Engineering Industries FTV Proclad Hoerbiger Service ME Weatherford

SAUDI ARABIA

Saudi Mechanical Industries

OMAN

Cameron Services Middle East United Engineering Services



Optimal Solutions for the Future

Head Office

Doosan Tower 20th FL., 275, Jangchungdan-Ro (St), Jung-Gu, Seoul

Tel +82-2-3398-8693 / 8671 / 8680

Fax +82-2-3398-8699

Doosan Infracore America Corp.

19A Chapin Rd., Pine Brook, NJ 07058, U.S.A.

Tel +1-973-618-2500

Fax +1-973-618-2501

Doosan Infracore Germany GmbH

Emdener Strasse 24, D-41540 Dormagen, Germany

Tel +49-2133-5067-100 Fax +49-2133-5067-001

Doosan Infracore Yantai Co., LTD

13 Building, 140 Tianlin Road, Xuhui District, Shanghai, China (200233)

Tel +86-21-6440-3384 (808, 805)

Fax +86-21-6440-3389

Doosan Infracore Construction Equipment India Pvt. Ltd. (Machine Tool Div.)

106 / 10-11-12, Amruthahalli, Byatarayanapura, Bellary road, Bangalore-560 092, India Tel +91-80-4266-0122 / 121 / 100

Doosan International South East Asia Pte Ltd.

42 Benoi Road, Jurong 629903, Singapore

Tel +65-6499-0200

Fax +65-6861-3459



st For more details, please contact Doosan.

 $^{* \ \ \}text{The specifications and information above-mentioned may be changed without prior notice.} \\$